

Stools (after diet)	No.	Reaction Changes			
		Neg.	%	2°	%
With muscle fibers	11	1	9	6	55
Without mus- cle fibers	32	18	56	23	72

it was in the groups preceding wherein muscle fibers were either not present or had disappeared.

In these stools wherein the reaction was changed from positive to negative, the mean period required was between 5 to 7 days, and the average time was 7.3 days.

Days ..... 3 4 5 6 7 9 15 24  
Stools ..... 2 2 3 4 4 1 1 1

If the group is shifted to include reactions showing a change of two degrees or more, the mean period lies between 3 to 7 days, and the average time is 6.7 days.

Days ..... 1 3 4 5 6 7 12 15 24  
Stools ..... 1 4 3 2 4 6 1 1 1

#### OTHER FACTORS AFFECTING THE TEST

Other conditions besides the presence of muscle fibers in the stools affect the dependability of the test. It is invalidated by affections of the nasopharynx, mouth, and anus, in which bleeding may play a part; as in epistaxis, tonsillitis, pyorrhea, hemorrhoids, ulcers, and fissures. Though many other diseases in our group are accompanied by a positive reaction, it may be reasonably concluded, from the changes noted under the conditions followed, that the reaction would be negative if the diet was adhered to for a sufficiently long period.

#### CLINICAL APPLICATION OF THE TEST

In its clinical application Gregerson has found the test, by the Wagner modification, to be constantly positive in carcinoma of the stomach, intermittently positive in ulcer, and negative in uncomplicated chronic gastritis, achylia, colitis, simple dyspepsia and constipation, nephritis, and cirrhosis of the liver. In carcinoma, however, the test was positive only in about 85 per cent of the cases. With this statement of Gregerson our findings tend to agree: of four cases, one proved negative—and without dieting.

#### COMMENT

The conditions under which the study was conducted were ideal from a clinical standpoint. Clinic patients afford a fair comparison of what may be expected of patients in private practice in regard to coöperation: we may have their word for it, but actually it is too frequently absent. Many conflicting results, though given some weight, must be discounted on this score—meat persisting in the stools while patients are on a meat-free diet. The "fishing" by which the specimens are obtained is revolting to too many temperaments to expect coöperation from all of them.

#### CONCLUSIONS

A meat diet very definitely affects the presence of occult blood in the stools by the benzidin method. To eliminate diet as a factor affecting the presence of occult blood by the benzidin

method, meat, meat-soups, and fish must be excluded therefrom.

The dependability of the benzidin test is appreciably affected when meat fibers are present in stools.

The time required to render the stools negative for occult blood by the benzidin method, in the absence of accountable pathology, varies between five to seven days on a meat-free diet.

The benzidin test has a negative value generally, and a positive value only in cases of gastrointestinal carcinoma and peptic ulcer.

When the natural antipathy of many patients is considered, as well as the factors that must be eliminated to render the benzidin test valid, and the time required to effect it, its use becomes very restricted. The factors are not readily controlled outside of hospital practice. The test is too often alternately positive and negative in cases other than carcinoma or ulcer. With these two exceptions, and only under the conditions above described, it becomes a mere diagnostic frill, and is not justified as a routine procedure.

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## THE LURE OF MEDICAL HISTORY\*

THOMAS AQUINAS

(1225 or 1227-1274 A. D.)

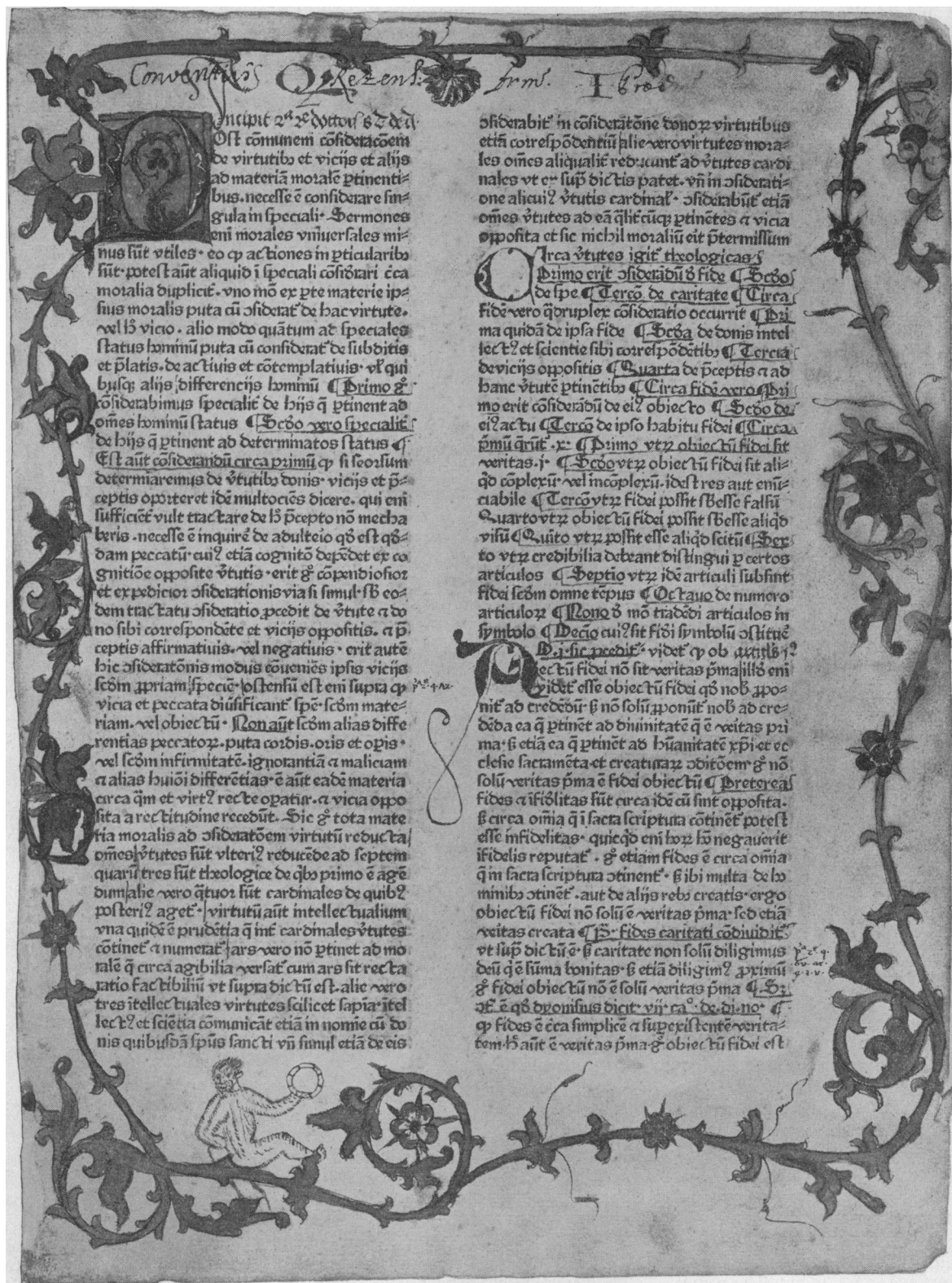
By FELIX CUNHA, M. D.

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THE accompanying illustration represents a facsimile of the first page of the collected works of Thomas Aquinas, priest, philosopher, physician, of the thirteenth century, undoubtedly the most famous of his time.

The book itself is one of the very earliest of the Swiss printings by Berthold Ruppel of Basel, a famed typographer of the time. It is a reprint of manuscripts, two of which bear the date 1468; but it is uncertain whether the book appeared before or after this date. Ruppel was a contempo-

\* A Twenty-five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany Department of CALIFORNIA AND WESTERN MEDICINE, and its page number will be found on the front cover index.

First page from Thomas Aquinas—*Summa Theologica*. Basle—Ruppel ca. 1468.

rary of Gutenberg, and this particular volume is one of the existing examples of the type of work done by the German typographer and his fellow craftsmen.

The first page, as illustrated here, shows a flowered border done in a pen drawing, and in

the lower part of the sketch a monkey. The significance of this is not understood. The entire drawing is the work of some cloistered monk. The illumination is particularly interesting, as the elaborate details in the letter "A" beginning each paragraph show. The printing is done on vellum.

The binding of the book is odd in that it is not of leather or skin, but is constructed of pages of incunabula of the time, pasted together to form thick boards. The back is of brown leather, with curious markings.

Another edition of the same work is described as having been printed by Peter Schoffer in Mainz in 1467. It is the first authentically dated edition, and represents the first book printed by Schoffer, another master typographer, contemporary of Gutenberg. This edition and that of Ruppel's, described above, are exceedingly rare, and so far as known, only two copies are in the United States.

As to Thomas Aquinas himself, there is little in the literature describing him, except from a purely ecclesiastical point of view. He was born near Aquino about 1227, and came from one of the most noble and eminent families of Europe. On his father's side he was related to the Emperor of Germany, Frederick I, and on his mother's side to Tancred, who had conquered that part of Italy known as the Two Sicilies and ruled over this region. He had, therefore, a legitimate claim to the title of prince.

Very early in life he was sent to a famous monastery, Monte Cassino, to begin his studies. This monastery possessed a great collection of scientific manuscripts, and unabated work was carried on to extend the knowledge already gathered and to add to this knowledge by laborious and tedious study and interpretation of the classics. Constant additions and gifts had made this collection, in its time, the most precious in all Europe. After spending five years in this monastery he was sent to the University of Naples, where he remained for two years, and then entered a Dominican cloister.

The science and medicine of the Middle Ages rested in the hands of the Dominicans, because it was through their laborious work in the preparation of manuscripts and the translating and interpreting of existing knowledge, as well as the careful guarding and transmission of these manuscripts in the Order, that finally they were made available for print as soon as the press was invented. This was the link between the medicine which had gone before and that which came after. The second link was to come later, and consisted of the translation from the "dead languages" into the modern.

Essentially, Thomas Aquinas contributed nothing new to the ideas of the day as to medicine, nor did he cause any upheaval in the medical thought then prevalent. Philosophy and medicine were considered inseparable, and the speculations of these monks in the realm of philosophy were closely tied to the field of medicine.

Two medical "dicta" were announced by Thomas Aquinas, and to these he adhered. They were not new—merely a repetition of what had been announced by others. One was that the body was formed by the junction of material and spiritual principles, that man consisted essentially of a spiritual mind united to a material body. The other was in his belief in the "philosopher's stone," or "great elixir," for which all scientists and philosophers then searched. He described it as "that

medicine which taketh away all impurities and corruption of a baser metal, so as to make it into purest silver and gold, and is thought by wise men to be able to wholly remove the corruption of the human body and prolong life for years."

He is mentioned by Dante in his "Divine Comedy" as the greatest philosopher of his time, possibly because in 1252 he lectured publicly in Paris and made a widely favorable impression, returning there in 1269 to lecture on theology. His complete works consisted of seventeen volumes. Two were entirely scientific speculations in the realm of physics and chemistry; and twelve were on philosophy, intermingled with medicine. The remaining three were on theology. In addition to these there were innumerable translations with his comments, including a "Commentary on Aristotle," several short treatises on "Heaven and Earth," "A Method for Uplifting the Soul" (perhaps one of the first self-helps), with suggestions for self-hypnotism, or psychotherapeutics.

He died in 1274 at the age of 47 or 49. (The records are not exact as to the date of his birth.) There is a Dominican cloister in Naples used as a municipal school by the city authorities, adjoining which is a chapel containing a tomb and a crypt dedicated to him. According to legend, Christ appeared to him and thanked him when he wrote his "Summa Theologiae" (Summary of Theology) in the words *Bene scripsisti de Me, Tomasso*, "You wrote well of me, Thomas."

The interest of Thomas Aquinas to medicine centers in his laborious translation and preparation in manuscript form of the old medical masters, thereby forming the first link in their transmission afterward, on the invention of the printing press, into works which still later were to be passed on into foreign and modern tongues.

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## CLINICAL NOTES AND CASE REPORTS

### FACTITIAL PROCTITIS

WITH ULCERATION WRONGLY DIAGNOSED  
AND TREATED AS A PRIMARY RECTAL  
CARCINOMA

By GEORGE E. MALMGREN, M. D.  
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IN 1929 sixty-five cases of factitial proctitis, observed at The Mayo Clinic between 1921 and 1929, were described by Dr. L. A. Buie and myself.<sup>1</sup> We defined the term as "used to designate pathological phenomena, sometimes found in the walls of the rectum following the extrarectal application of radium or a combination of radium and x-ray in the treatment of lesions involving pelvic structures other than the rectum."

#### SIGNS AND SYMPTOMS

Factitial proctitis is characterized by the same type of changes which may be found on any mucosal or skin surface following irradiation therapy. Proctoscopic examination reveals typical appear-